

## United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/535,204	05/17/2005	Jae-Young Kim	3254-0127PUS1	2009	
2292 7:	590 03/31/2006		EXAM	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH			EDWARDS, NEWTON O		
PO BOX 747 FALLS CHUR	CH, VA 22040-0747		ART UNIT	PAPER NUMBER	
	,		1774		

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)					
	10/535,204	KIM ET AL.					
Office Action Summary	Examiner	Art Unit	_				
	N Edwards	1774					
The MAILING DATE of this communication app Period for Reply	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply						
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  If NO period for reply is specified above, the maximum statutory period was railure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION  16(a). In no event, however, may a reply be tim  iill apply and will expire SIX (6) MONTHS from  cause the application to become ABANDONE	I. nely filed the mailing date of this communication. D (35 U.S.C. § 133).					
Status							
1) Responsive to communication(s) filed on 08 Ma	arch 2006.						
2a) This action is <b>FINAL</b> . 2b) ☐ This	action is non-final.						
3) Since this application is in condition for allowar							
closed in accordance with the practice under E	x parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.					
Disposition of Claims							
4) Claim(s) 1-4 is/are pending in the application.	4)⊠ Claim(s) <u>1-4</u> is/are pending in the application.						
4a) Of the above claim(s) 2-4 is/are withdrawn f	rom consideration.						
5) Claim(s) is/are allowed.							
6)⊠ Claim(s) <u>1</u> is/are rejected.							
7) Claim(s) is/are objected to.	alastian requirement	·					
8) Claim(s) are subject to restriction and/or	election requirement.						
Application Papers							
9)☐ The specification is objected to by the Examine							
10)☐ The drawing(s) filed on is/are: a)☐ acce							
Applicant may not request that any objection to the							
Replacement drawing sheet(s) including the correcting 11) The oath or declaration is objected to by the Extended to be the Extended to the Ext	,						
Priority under 35 U.S.C. § 119							
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a) All b) Some * c) None of:							
1. Certified copies of the priority documents		on No					
<ul><li>2. Certified copies of the priority documents have been received in Application No</li><li>3. Copies of the certified copies of the priority documents have been received in this National Stage</li></ul>							
application from the International Bureau		a in the Hational Stage					
* See the attached detailed Office action for a list of the certified copies not received.							
Attachment(s)							
1) Notice of References Cited (PTO-892)	4) Interview Summary						
<ul> <li>2) Notice of Draftsperson's Patent Drawing Review (PTO-948)</li> <li>3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)</li> </ul>	Paper No(s)/Mail Da 5) Notice of Informal P	ate atent Application (PTO-152)					
Paper No(s)/Mail Date 5/17/00 5	6) Other:						

Page 2

Application/Control Number: 10/535,204

Art Unit: 1774

1. Applicant's election of group I claim 1 in the reply filed on 3/8/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The Lack of Unit is deemed proper and hereby made FINAL.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claim 1 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Yamamoto (US 3533984).

On one hand, Yamamoto teaches a delustered nylon 6 fibers (yarn) containing about 2 to 10 % uniformly dispersed pigments such a titanium dioxide treated with 0.1 to 25% dispersing agent such phosphate salt or sodium phosphate salt in the nylon 6 polymer (polycaprolactam or polyamide 6). Yamamoto further teaches when the sodium phosphate salt dispersing agent is mixed with the pigment and nylon 6 polymer

Application/Control Number: 10/535,204

Art Unit: 1774

achieves a degree of dispersion 99.1 to 99.8 %. See example 1-4, col. 1, and col.2 of Yamamoto, for example. Note when claim 1 line 2-4 when read light of the spec at page 18 means the same thing as number of coarse particles.

Therefore, the Primary Examiner has reason to believe that Yamamoto yarn polymer inherently has the same number of coarse particles (in 50 mg yarn polymer possess at least 35 to 95 particles having a diameter of greater than 5 micron) due to the same structural identity (composition, amount of titanium dioxide, amount of phosphate salt) as claimed.

On the other hand, Yamamoto teaches all of the claim invention but is silent to the number of coarse particles (reading claim 1 line 2-4 in light of page 18 of the spec). However, Yamamoto disclosure provides a reasonable expectation of success of produce the same claimed number of coarse particles in the yarn polymer due to the same structural identity (composition, amount of titanium dioxide, and amount of phosphate salt) as claimed.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited patents disclose the state of the prior art.

Any inquiry concerning this communication should be directed to Primary Examiner Edwards at telephone number 571-272-1521.

Primary Examiner

Art Unit 1774